UDC 595.132

## DESCRIPTION OF METATERATOCEPHALUS BIALOWIEZIENSIS SP. N. (NEMATODA, METATERATOCEPHALIDAE)

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Accepted 20 September 2003

**Description of** *Metateratocephalus bialowieziensis* **sp. n.** (Nematoda, Metateratocephalidae). Holovachov O. V. — A new species *Metateratocephalus bialowieziensis* Holovachov, sp. n. from Poland is described. It diffres from other species of the genus by dorsally arcuate body, linger rectum and by combination of morphometric characters.

Key words: Metateratocephalus, nematodes, new species, Poland.

Описание *Metateratocephalus bialowieziensis* sp. n. (Nematoda, Metateratocephalidae). Головачев О. В. — Описан новый вид *Metateratocephalus bialowieziensis* Holovachov, sp. n. из Польши, который отличается от других видов рода дорсально изогнутым телом, более длинным ректумом и комбинацией морфометрических признаков.

Ключевые слова: Metateratocephalus, нематоды, новый вид, Польша.

The genus *Metateratocephalus* Eroshenko, 1973 includes three valid species: *M. crassidens* (de Man, 1880) Eroshenko, 1973, *M. deckonincki* Andrassy, 1984 and *M. gracilicaudatus* Andrassy, 1985. A population of *Metateratocephalus* from the *Sphagnum*-moss from Bialowiezski Park Narodowy from Poland was found to be different from all other species of the genus in a number of characters and is described here as a new species. Specimens were available as permanent glycerine sides due to the courtesy of Dr. G. Winiszewska, whose kindness is greatly acknowledged.

## Metateratocephalus bialowieziensis Holovachov, sp. n.

Fe male. Body cylindrical, gradually narrowing anteriorly on the pharyngeal region and posteriorly on tail. Body when heat relaxed strongly curved dorsad. Cuticle when seen under the light microscope without distinct annulation but with transverse rows of very fine punctations. Lateral field indistinct. Somatic setae not seen. True deirids and phasmids absent. Labial region strongly offset, crown-shaped with U-shaped sclerotization under the light microscope, with six leaf-shaped lips. Each subdorsal and subventral lips bearing two setae while lateral lips bearing only one setae each. Amphids large, circular with small tube-like aperture, located posteriorly to stoma base. Stoma funnel-shaped, consist of two sections: wide anterior with strongly sclerotized barshaped rhabdia, and funnel-shaped posterior with weakly sclerotized rhabdia. Pharynx cylindrical, with distinct differentiation between corpus and isthmus. Corpus cylindrical, isthmus cylindrical and somewhat narrower than corpus. Basal bulb oval, with strongly developed valvular apparatus. Pharyngeal glands indistinct. Dorsal gland orifice opening into the pharyngeal lumen somewhat posterior to stoma base. Radial tubules present. Secretory-excretory system well developed, excretory gland is located ventral to isthmus, excretory pore posterior to nerve ring. Female reproductive system didelphic, amphidelphic, ovary branches antidromously reflexed. Vagina short and straight. Spermatheca absent. No sperm in the genital tubes. Rectum straight, longer than the anal body diameter. A pair of caudal ventrosublateral setae is situated about 1.5 anal

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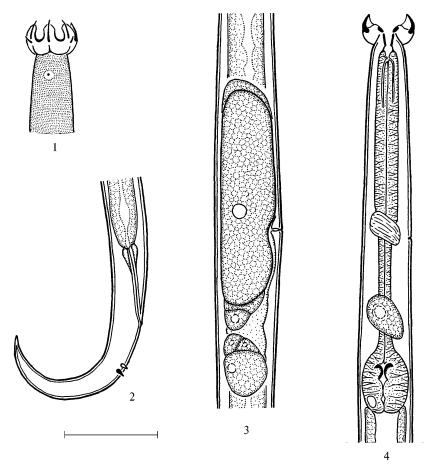


Fig. 1–4. *Metateratocephalus bialowieziensis*: 1 — anterior end, surface view; 2 — tail; 3 — female reproductive system; 4 — pharyngeal region. Scale bar 20 mkm.

Рис. 1—4. *Metateratocephalus bialowieziensis*: 1 — передний конец тела, вид с поверхности; 2 — хвост; 3 — женская половая система; 4 — пищеводный отдел. Масштабная линейка 20 мкм.

body diametrs posteriorly to anal opening. Tail plump, cylindro-conoid, strongly curved dorsad. Punctation on the tail very weak. Caudal glands absent.

Male. Not found.

Diagnosis. Small nematode with dorsally arcuate body, weak cuticular punctation, long rectum, caudal setae located posteriorly to anus, plump cylindro-conoid dorsally curved tail.

Relationships. *M. bialowieziensis* differs from all species of *Metateratocephalus* by the dorsally arcuate body (versus straight) and longer rectum (R/ABD 2.0-2.5 versus 1.0-1.6, rectum length 17-23 mkm versus 7-12 mkm). It further differs from *M. crassidens* (sensu Eroshenko, 1973; Zell, 1993; Karegar et al., 1997) (syn. *M. typicus* Eroshenko, 1973) in weak lateral punctation (versus prominent); from *M. crassidens* (apud Swart et al., 1989) in relatively shorter (c = 9.1-11.2 versus 6.4-8.0) and plump tail (versus with filliform terminal part), caudal setae located 1.5 ABD posteriorly to anus (versus at anus level); from *M. deconincki* (syn. *M crassidens* apud De Coninck, 1935) in more anterior amphid location (Amphid/LRD = 1.0-1.3 versus 3), acute tail terminus (versus mucronate); from *M. gracilicaudatus* in absolutely (36.5-43 mkm versus 56-62 mkm) and relatively (c' = 4.4-5.2 versus 7-8) shorter and plump tail (versus with filliform terminal part), weak lateral punctation (versus prominent) and in more anterior amphid location (Amphid/LRD = 1.0-1.3 versus 1.5-1.7).

Table 1. Measurements of *M. bialowieziensis* form Poland Таблица 1. Измерения *M. bialowieziensis* из Польши

Characters	Holotype	12 females paratypes
Body length	440	407+27 (354-440)
Body diameter	14	13.5+1.9 (10.5-16.5)
Pharyngeal region length	107	99.4+5.5 (87-107)
Tail length	39	40.7+2.9 (36.5-43)
Anal body diameter (ABD)	8	8.4+0.7 (7.5-9)
a	26.5	30.6+3.1 (26.5-37.2)
b	4.1	4.1+0.1 (3.8-4.2)
c	11.2	10.1+0.6 (9.1-11.2)
c'	5.0	4.9+0.3 (4.4-5.2)
Stoma length	11	11.0+0.8 (9-12)
Labial region diametr (LRD)	13.5	12.2+1.1 (10-13.5)
Amphid heigh	13	13.6+1.4 (11-15.5)
Amphid/LRD	1.0	1.1+0.1 (1.0-1.3)
Nerve ring location	62	57.4+0.3 (51-62)
Excretory pore location	67	61.1+0.4 (53-67)
NR (%)	58	57.6+2.4 (54-61)
EP (%)	63	61.2+1.8 (57-63)
Caudal setae location	8.5	9.9+1.7 (7-13)
Caudal setae location / tail length (%)	22	24.3+3.7 (17-29)
Vagina length	4	4.8+0.6 (4-6)
V-A/T	4.3	3.8+0.3 (3.4-4.3)
Rectum length (R)	19.5	19.3+1.6 (17-23)
R/ABD	2.5	2.3+0.2 (2.0-2.7)
V (%)	53	52.9+0.9 (51.5-55)
G1 (%)	10	9.4+2.2 (5.4-12.2)
G2 (%)	9.5	8.6+2.4 (5.4-12.7)

Type 10 cality. Holotype and twelve paratype females, Poland, Bialowiezski Park Narodowy, Puszcza Bialowiezska, department N 513, *Sphagnum*-mosses, 22.10.1985 (Winiszewska).

Type specimens. Holotype and four paratypes in the nematodes collection of Museum i Instytut Zoologii PAN, Warszawa, Poland. Two paratypes each in the nematode collections of Naturhistoriska Riksmuseet, Stockholm, Sweden; Department of Nematology, University of California, Riverside, USA; Laboratorium voor Nematologie, Wageningen Universiteit, the Netherlands.

Ethymology. The specific name is a Latin derivation and reflects the name of the type locality.

*Ерошенко А. С.* Новые данные по таксономии семейства Teratocephalidae Andrassy (Nematoda) // Зоол. журн. — 1973. — **52**. — С. 1768—1775. *Karegar A., De Ley P., Geraert E.* Three teratocephalid nematodes from Iran // Fundamental and applied

nematology. — 1997. — **20**. — P. 459–471.

Swart A., Meyer A. J., Heyns J. Description of one new and two known species of Teratocephalidae (Nematoda) from South Africa // Phytophylactica. — 1989. — 21. — P. 367–377.

Zell H. Nematoden eines Buchenwaldbodens. 7. Die Teratocephaliden (Nematoda, Rhabditida) // Carolinea. — 1986. — 44. — S. 119–128.